

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent application

of Patel et al.

Inventor(s)

for Aircraft and Missile Forebody Control Device and Method of
Controlling Flow Title of invention

the specification of which is being transmitted herewith

OR

In re application of:

Serial No.: 0 /

Group No.:

Filed:

Examiner:

For:

Assistant Commissioner for Patents
 Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

CERTIFICATION UNDER 37 C.F.R. 1.8(a) and 1.10*

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(Information Disclosure Statement [6-1]—page 1 of 5)

NOTE: "An information disclosure statement shall be considered by the Office if filed by the applicant:

- (1) Within three months of the filing date of a national application;
 - (2) Within three months of the date of entry of the national stage as set forth in § 1.491 in an international application; or
 - (3) Before the mailing date of a first Office action on the merits, whichever event occurs last."
- 37 C.F.R. 1.97(b).

NOTE: "Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section." 37 C.F.R. 1.56(a).

"Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) each inventor named in the application;
- (2) each attorney or agent who prepares or prosecutes the application; and
- (3) every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application." 37 C.F.R. 1.56(c).

NOTE: The "duty as described in § 1.56 will be met so long as the information in question was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b) - (d) and 1.98 before issuance of the patent." Notice of January 9, 1992, 1135 O.G. 13 -25 at 17.

WARNING: "No information disclosure statement may be filed in a provisional application." 37 C.F.R. § 1.51(b).

List of Sections Forming Part of This Information Disclosure Statement

The following sections are being submitted for this Information Disclosure Statement:

(check sections forming a part of this statement: discard unused sections
and number pages consecutively)

1. ☒ Preliminary Statements
2. ☐ FORMS PTO/SB/08A and 08B (formerly FORM PTO-1449)
3. ☐ Statement as to Information Not Found in Patents or Publications
4. ☒ Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted
5. ☐ Cumulative Patents or Publications
6. ☐ Copies of Listed Information Items Accompanying This Statement
7. ☐ Concise Explanation of Non-English Language Listed Information Items
 - 7A. ☐ EPO Search Report
 - 7B. ☐ English Language Version of EPO Search Report
8. ☐ Translation(s) of Non-English Language Documents
9. ☐ Concise Explanation of English Language Listed Information Items (Optional)
10. ☒ Identification of Person(s) Making This Information Disclosure Statement

(complete the following, if appropriate)

Sections _____, respectively, have been continued on ADDED PAGE(S).

NOTE: "Once the minimum requirements are met, the examiner has an obligation to consider the information." Notice of April 20, 1992 (1138 O.G. 37-41, 37).

Section 1. Preliminary statements

Applicants submit herewith patents, publications or other information, of which they are aware that they believe may be material to the examination of this application, and in respect of which, there may be a duty to disclose.

The filing of this information disclosure statement shall not be construed as a representation that a search has been made (37 C.F.R. 1.97(g)), an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists.

The filing of this information disclosure statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.

Section 4. Identification of Prior Application in Which Listed Information Was Already Cited and for Which No Copies Are Submitted or Need Be Submitted

NOTE: "A copy of any patent, publication or other information listed in an information disclosure statement is not required to be provided if it was previously cited by or submitted to the Office in a prior application, provided that the prior application is properly identified in the statement and relied upon for an earlier filing date under 35 U.S.C. 120." 37 C.F.R. 1.98(d).

WARNING: "This exception to the requirement for copies of information does not apply to information which was cited in an international application under the Patent Cooperation Treaty." Notice of April 20, 1992 (1138 O.G. 37-41, 38).

WARNING: "Information which is cited or submitted to the Office in the parent application of a file wrapper continuing application under 37 C.F.R. 1.62 will be part of the file before the examiner and need not be resubmitted in the continuing application. Likewise, the examiner will consider information cited or submitted to the Office in a parent application when examining a continuing application and thus this information need not be resubmitted unless applicant desires the information to be printed on the patent." Notice of April 20, 1992 (1138 O.G. 37-41, 37).

WARNING: While a copy of a non-English language item of information need not be submitted, if it was previously submitted to, or cited by, the Office in a prior application, provided it is properly identified in this statement and this application relies on that earlier filing date under 35 U.S.C. 120, nevertheless, the requirement in § 1.98(a)(3) for a concise explanation of non-English language information would not be satisfied by a statement that a reference was cited in the prosecution of a parent application. The concise explanation must explain the relevance, as presently understood by the person designated in § 1.56(c) most knowledgeable about the content of the information. Notice of January 9, 1992, 1135 O.G. 13-25, at 20.

This application relies, under 35 U.S.C. 120, on the earlier filing date of prior application SN.: 010 / 336,117 , filed on January 3, 2003 (date).

(complete the following, if applicable)

☐ This application also relies, under 35 U.S.C. 120, on the earlier filing date of prior application SN.: 0 / , filed on _____ (date).

The following references were submitted to, and/or cited by, the Office in the prior application(s) and, therefore, are not required to be provided in this application:

USPatNos. 4,917,333; 5,755,408; and 6,105,904

1. Patel et al, Deployable Flow Effectors for Phantom Yaw Control of Missiles at High Alpha; 1st AIAA Flow Control conference 24-26 June 2002, St. Louis, MO, pp 1-12.

2. JBernhardt et al, Closed Loop Control of Forebody Asymmetry; Journal of Aircraft, Vol 27, No.3; May-June; pp491-493.

3. Lisa Bjarka et al; A Summary of the Forebody High-Angle-of-Attack Aerodynamic Research on the F-18 and the X-29A Aircraft; Nasa Technical Memorandum, November 1992; pp. 1-17.

4. D. Fisher et al; Forebody Flow Visualization on the F-18 HARV With Actuated Forebody Strakes; Nasa Technical Memorandum, Sept 1998; pp 1-10.

(Information Disclosure Statement — Section 4. Identification of Prior Application in Which Listed Information Was Already Submitted and for Which No Copies Are Submitted or Need Be Submitted

5. L Ericson et al.; Forebody Flow Control at Conditions of Nat. Occurring Separation Asymmetry; J of Aircraft, Mar-Apr 2002; 252-61.
6. L. Ericson et al; Asymmetric Flow Separation and Vortex Shedding on Bod. of Rev.; From Tactical Missile Aerodynamics; Edited by M. Hemsch; Vol 141, Chapter 10; 1989; pp 391-401.

[6-1]—page 4 of 5

Section 10. Identification of Person(s) Making This Information Disclosure Statement

The person making this statement is

(check each applicable item)

- (a) ☐ the inventor(s) who signs below

SIGNATURE OF INVENTOR

(type name of inventor who is signing)

- (b) ☐ an individual associated with the filing and prosecution of this application (37 C.F.R. 1.56(c))

SIGNATURE OF INVENTOR

(type name of inventor who is signing)

- (c) ☒ the practitioner who signs below on the basis of the information:

(check each applicable item)

- ☒ supplied by the inventor(s).
☒ supplied by an individual associated with the filing and prosecution of this application (37 C.F.R. 1.56(c))
☒ in the practitioner's file.



SIGNATURE OF PRACTITIONER

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